

WHAT IS CLAIMED IS:

- 1 1. An electric vehicle comprising:
2 an axle,
3 wheels supported on said axle,
4 a drive unit for rotating said axle,
5 a power supply unit for feeding electric power to said drive unit,
6 wherein said drive element includes a motor,
7 said motor includes a stator core having a plurality of teeth parts, a
8 concentrated winding applied over each teeth part of said plurality of teeth parts
9 and a rotor incorporating a plurality of permanent magnets, and each of said
10 plurality of permanent magnets is provided at a larger pitch than the stator coil
11 pitch.
- 1 2. The electric vehicle of claim 1, wherein said rotor further
2 includes an iron as a flux of magnetic induction, said iron being disposed between
3 said each permanent magnet.
- 1 3. An electric vehicle comprising:
2 an axle,
3 wheels supported on said axle,
4 a drive unit for rotating said axle,
5 a power supply unit for feeding electric power to said drive unit,
6 wherein said drive element includes a motor and an engine,

24
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7 said motor includes a stator core having a plurality of teeth parts, a
8 concentrated winding applied over each teeth part of said plurality of teeth parts
9 and a rotor incorporating a plurality of permanent magnets, and

10 each of said plurality of permanent magnets is provided at a larger
11 pitch than the stator coil pitch.

1 4. An electric vehicle comprising:

2 an axle,

3 wheels supported on said axle,

4 a drive unit for rotating said axle,

5 a power supply unit for feeding electric power to said drive unit,

6 wherein said drive element includes a motor,

7 said motor includes a stator core having a plurality of teeth parts, a
8 concentrated winding applied over each teeth part of said plurality of teeth parts
9 and a rotor incorporating a plurality of permanent magnets,

10 said stator core is formed in an annular form by combining said
11 plurality of core elements, and

12 each of said plurality of permanent magnets is provided at a larger
13 pitch than the stator coil pitch.

1 5. The electric vehicle of claim 4, wherein said each teeth part
2 includes an outer circumference part, and said each teeth part is combined by
3 fitting parts disposed at end portion of said outer circumference part.

1 6. An electric vehicle comprising:

2 an axle,
3 wheels supported on said axle,
4 a drive unit for rotating said axle, and
5 a power supply unit for feeding electric power to said drive unit,
6 wherein said drive element includes a motor,
7 said motor includes a stator core having a plurality of teeth parts, a
8 concentrated winding applied over each teeth part of said plurality of teeth parts
9 and a rotor incorporating a plurality of permanent magnets,
10 each of said plurality of permanent magnets is provided at a larger
11 pitch than the stator coil pitch,
12 said plurality of permanent magnet are arranged around a center
13 thereof,
14 at least one of said plurality of permanent magnets has a magnet
15 forward portion and a magnet backward portion each having respective surfaces
16 facing said stator core and angled toward each other.

1 7. An electric vehicle comprising
2 an axle,
3 wheels supported on said axle,
4 a drive unit for rotating said axle, and
5 a portion supply unit for feeding electric power to said rive unit,

6 wherein said drive element includes a motor,
7 said drive element includes a motor,
8 said motor includes a stator core having a plurality of teeth parts, a
9 concentrated winding applied over each teeth part of said plurality
10 of teeth parts and a rotor incorporating a plurality of permanent magnets,
11 each of said plurality of permanent magnets is provided at a larger
12 pitch than the stator coil pitch,
13 said plurality of permanent magnet are arranged around a center
14 thereof, and
15 at least one of said plurality of permanent magnets has a side facing
16 said stator core which is intended inward towards said center.

1 8. An electric vehicle comprising:
2 an axle,
3 wheels supported on said axle,
4 a drive unit for rotating said axle, and
5 a power supply unit for feeding electric power to said drive unit,
6 wherein said drive element includes a motor,
7 said drive element includes a motor,
8 said motor includes a stator core having a plurality of teeth parts, a
9 concentrated winding applied over each teeth part of said plurality of teeth parts
10 and a rotor incorporating a plurality of permanent magnets,

11 each of said plurality of permanent magnets is provided at a larger
12 pitch than the stator coil pitch, and

13 a first outer periphery portion of said rotor is of different shape than
14 a second outer periphery portion of said rotor without said second outer periphery
15 portion being situated directly between any of said magnet.

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